

**SUN YAT-SEN UNIVERSITY**  
**ZHONGSHAN SCHOOL OF MEDICINE**  
**APPROVAL DOCUMENT IN ETHICS COMMITTEE OF**  
**ZSSOM LABORATORY ANIMAL CARE**

Ethics Committee of ZSSOM on Laboratory Animal Care (No.2016-133)

Project name	Tracing and modifying the homing capability of bone marrow derived mesenchymal stem cells		
The content and significance in research	The present study is designed to investigate the tracking of the bone marrow-derived mesenchymal stem cells (BMSCs) engineered with over-expression of CXCR4, Luciferase and eGFP by tissue sections in 2,4,6-trinitrobenzene sulfonic acid (TNBS)-induced experimental colitis to promote the prospective study in inflammatory bowel disease (IBD). Real-time quantitative PCR (q-PCR) will be applied to measure the concentration of the inflammatory factors and chemokine factors to select the most relevant index as the prognostic indicator in molecular level.		
Principle investigator	Xiang Peng		
Committee members in ethics committee of ZSSOM on laboratory Animal Care	<b>Name</b>	<b>Title</b>	<b>Work unit</b>
	Cai Weibin	Professor	Sun Yat -Sen University Zhongshan School of Medicine
	Huang Xi	Professor	Sun Yat -Sen University Zhongshan School of Medicine
	Wang Yuanzhan	Research Fellow	Southern Medical university Animal laboratory center
	Tan Hongmei	Professor	Sun Yat -Sen University Zhongshan School of Medicine
	Huang Chaofeng	Associate Professor	Sun Yat -Sen University Zhongshan School of Medicine
Voting result: 1. Approve ( 5 )      3. Approve after necessary revise (   ) 2. Disapprove (   )    4. Stop or suspend the approved experiments (   )			

### Approval opinion of Ethics Committee of ZSSOM on Laboratory Animal Care:

To investigate the tracking of the bone marrow-derived mesenchymal stem cell in IBD model and enrich the prognostic indicator in molecular level, we have reduced the number of animals used in our design. We will establish IBD model of BALB/c mice which will be divided into 4 experiments, including the human MSCs<sup>EF-1 $\alpha$ -CXCR4-Luciferase-IRES-eGFP</sup> group, human MSCs<sup>EF-1 $\alpha$ -Luciferase-IRES-eGFP</sup> group, saline group and control group. Colon tissue section, cytokine will be analyzed after measurement. All the animals will be narcotized by 4% chloral hydrate (150ug/ml) and sacrificed by cervical dislocation. The mice body will receive sanity treatment. To be well applied the "3R" principle, the experimental technical route has been delicately designed and selected in order to reduce discomfort and suffer of experimental animals which will promise the repeatability of animal experiment.

Signed by the chairman of committee:



Date: 10th, August, 2016